

WE CLAIM:

1 1. A method for collecting fetal cells from a liquid
2 which comprises a maternal blood component, comprising the
3 steps of:

4 disposing the liquid in a vessel having a
5 collector surface for the fetal cells; and

6 effecting a chaotic flow in the liquid for a
7 preselected duration during which the fetal cells are
8 collected on the collector surface.

1 2. The method according to claim 1, wherein the
2 vessel comprises a cylindrical outer portion and a
3 cylindrical inner portion whose axes are parallel and
4 distinct from each other.

1 3. The method according to claim 2, wherein the step
2 of effecting the chaotic flow comprises rotating each of the
3 outer and inner portions of the vessel in an alternating
4 fashion.

1 4. The method according to claim 2, wherein the
2 collector surface is disposed at the outer portion of the
3 vessel.

1 5. The method according to claim 2, wherein the
2 collector surface is disposed at the inner portion of the
3 vessel.

1 6. The method according to claim 1, wherein the
2 collector surface is disposed on at least one surface dipped
3 into the liquid.

4 7. An apparatus for collecting fetal cells from a
5 liquid which comprises a maternal blood component,
6 comprising:
7 means for holding the liquid, having a collector
8 surface for the fetal cells; and
9 means for effecting a chaotic flow in the liquid
10 for a preselected duration during which the fetal cells are
11 collected on the collector surface.

1 8. The apparatus according to claim 7, wherein the
2 holding means comprises a cylindrical outer portion and a
3 cylindrical inner portion whose axes are parallel and
4 distinct from each other.

1 9. The apparatus according to claim 8, wherein the
2 effecting means comprises means for rotating each of the
3 outer and inner portions of the holding means in an
4 alternating fashion.

1 10. The apparatus according to claim 8, wherein the
2 collector surface is disposed at the outer portion of the
3 holding means.

1 11. The apparatus according to claim 8, wherein the
2 collector surface is disposed at the inner portion of the
3 holding means.

1 12. The apparatus according to claim 7, wherein the
2 collector surface is disposed on at least one surface dipped
3 into the liquid.

1 13. An apparatus for collecting fetal cells from a
2 liquid which comprises a maternal blood component,
3 comprising:

4 a vessel having a collector surface for the fetal
5 cells; and

6 a stirrer module disposed and operatively coupled
7 for chaotic mixing of the liquid in the vessel.

1 14. The apparatus according to claim 13, wherein the
2 vessel comprises a cylindrical outer portion and a
3 cylindrical inner portion whose axes are parallel and
4 distinct from each other.

1 15. The apparatus according to claim 14, wherein the
2 stirrer module comprises separate rotation drives
3 operatively coupled to the outer and inner portions of the
4 vessel.

1 16. The apparatus according to claim 14, wherein the
2 collector surface is disposed at the outer portion of the
3 vessel.

1 17. The apparatus according to claim 14, wherein the
2 collector surface is disposed at the inner portion of the
3 vessel.

1 18. The apparatus according to claim 13, wherein the
2 collector surface is disposed on at least one surface dipped
3 into the liquid.